Where do Glasgow’s Cyclists Cycle and How do We Know?

A non-expert’s view on Strava, EU Cycling Challenge and STATS19 data

UBDC Active Travel Data Challenge Day
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Bob Downie
email bob@downie-geo.co.uk
blog www.downie-geo.co.uk

Go Bike Strathclyde Cycle Campaign
Filtered Strava 2015 Total Activity Count (TACTCNT)

- STRAVA, smartphone tracking app.
- Line width proportional to use
- Shows strong radial cycling patterns

Data thanks to Strava.com & UBDC

https://labs.strava.com/, http://ubdc.ac.uk/
Unfiltered EU Cycling Challenge Heatmap 2017

- EU Cycling Challenge, smartphone tracking app.
- Line width/colour intensity proportional to use.
- Shows predominant radial cycling patterns.

http://www.cyclingchallenge.eu/
https://heatmaps.naviki.org

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• STATS19 are traffic accident statistics collated annually by UK government
• Cycle accidents are relatively uncommon and data must be aggregated over multiple years to reveal meaningful accident patterns
• Accidents substantially align along main radial roads

https://discover.ukdataservice.ac.uk/
Combining Data Characterises Cycle Accident Hotspots Relative to Cycle Usage, Strava & STATS19

High accident rates pertain on certain roundabouts, particularly those on dual carriageways.

- Shieldhall Rd Roundabout: 10 accidents
- Paisley Rd W. Roundabout: 7 accidents
- Auldhouse Roundabout: 13 accidents
- Paisley Rd W. Roundabout: 7 accidents
- Kilmarnock Rd Roundabout: 9 accidents
- Victory Road Roundabout: 6 accidents

Streets with shops, on-street parking, lack of cycle facilities, junctions.
Combining Data Characterises Cycle Accident Hotspots Relative to Cycle Usage, Strava & STATS19

High accident rates on streets with shops, on-street parking, lack of cycle facilities, junctions

- Auldhouse Roundabout: 13 accidents
- Shieldhall Rd Roundabout: 9 accidents
- Paisley Rd W. Roundabout: 7 accidents
- Pollok Roundabout: 7 accidents
- Auldhouse Roundabout: 13 accidents
- Battlefield Roundabout: 6 accidents
- Victoria Road
- Kilmarnock Road

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Combining Data Characterises Cycle Accident Hotspots Relative to Cycle Usage, Strava & STATS19

High accident rates on streets with shops, on-street parking, lack of cycle facilities.

Typical “high accident” shopping street. Kilmarnock Road, Govanhill

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Some Cycling Behaviour Conclusions

• Both Strava and EU Cycling Challenge suggest cyclists preferentially travel on the main arterial roads, radially into and out of the city. The cycle accident distribution patterns are consistent with this.

• These observations pose a challenge. Should city authorities attempt to provide safe cycle facilities to satisfy the desires of the current cycle community (i.e. on the main roads), or should they seek to provide safe cycle facilities on less direct routes? Would the latter satisfy present and future cyclists?

Some Cycle Accident Conclusions

• Certain roundabouts and many roads flanked by small shops and on-street parking show egregiously high levels of cycle accidents relative to the levels of cycle traffic.

• Remedial action to increase the safety to cyclists at these locations is urgently required.
Glasgow’s most dangerous location for cyclists?

Despite only moderate cycle traffic, Auldhouse Roundabout has been site of 13 recorded cycle accidents in 15 years.